

LIST OF CURRENT CLAIMS

1. (Currently Amended) A temperature sensing tube fabrication method comprising the steps of:

providing a tubular member of an appropriate length;

forming a curvilinear bottom end of the tubular member to define a bottom section aperture;

forming a neck base and a neck body at a top end of the tubular member; and

forming an outer conoidal hem and an inner conoidal hem on the tubular member proximate to said neck base;

wherein the curvilinear bottom end defining the bottom section aperture is formed having a bottom section hole mount in a step between the step of forming the neck base and the neck body and the step of forming the outer conoidal hem and the inner conoidal hem.

2. (Previously Presented) The method according to claim 1, wherein during the step of forming the neck base and the neck body, the bottom section aperture is formed at the same time.

3. (Cancelled)

4. (Currently Amended) A temperature sensing tube fabrication method comprising the steps of:

providing a tubular member of an appropriate length;

moving the tubular member between a first female die having a die cavity and a curved bottom edge and a punching rod having a thin lengthy rod section and a

curved front end section for impact forging to thereby form a curvilinear bottom end of the tubular member to define a bottom section aperture;

moving the tubular member between a second female die having a die cavity and a curved bottom edge and a punching die having a channel and a suitably long flared hole section at its front end for impact forging to thereby form a neck base and a neck body at a top end of the tubular member;

moving the tubular member between a third female die having a die cavity and a curved bottom edge and a punching die having a channel and a suitably long flared hole section at its front end for impact forging to thereby further form the neck base and the neck body; and

moving the tubular member between a fourth female die having a die cavity, a circular groove-shaped bottom edge, and a flared opening and a punching die having a channel, a suitably long flared hole section at its front end, and a conical edge for impact forging to form an outer conoidal hem and an inner conoidal hem.

5. (Previously Presented) The method according to claim 4, wherein during the step of forming the neck base and the neck body, the third female die includes a circular groove-shaped bottom edge to form a bottom section hole mount at the same time.

6. (Previously Presented) The method according to claim 4, further comprising between the step of forming the neck base and the neck body and the step of forming the outer conoidal hem and the inner conoidal hem, a step of moving the tubular member between a female die having a cavity and a circular groove-shaped bottom edge and a punching die having a channel and a suitably long flared hole section at its front end for impact forging to form a bottom section hole mount.

7. (Withdrawn) A temperature sensor temperature sensing tube comprised of: A head section having an outer conoidal hem formed along the circumference at its lower extent, a neck section is formed at the center, and a passage is disposed in the

said neck section. The said tube member having a hollow interior section that is contiguous with the said passage and the said aperture in its bottom section. The features of which are: the said head section and the said tube member are forged from the said tubular blank into a one-piece, entirely unitary structural component, with the said head section outer conoidal hem and neck section formed as extensions of the said tube member.

8. (Withdrawn) As mentioned in claim 7 of the temperature sensor temperature sensing tube of the invention herein, after the said head section is extended from the said tube member to form the said outer conoidal hem, the upper circumferential edge of the said outer conoidal hem is bent into a U-shape such that it overlaps against the said outer conoidal hem inner conoidal hem, following which the said neck section is formed from the bottom section.

9. (Withdrawn) As mentioned in claim 7 of the temperature sensor temperature sensing tube of the invention herein, the said neck section includes a gradually reduced neck base which is larger than and formed upward from the said bottom section and continues extending above into a neck body having an approximately equal tubular diameter.

10. (Withdrawn) As mentioned in claim 7 of the temperature sensor temperature sensing tube of the invention herein, the said passage includes a hole section of a nominally constant inner diameter and a conic hole section of graduated reduction from the bottom towards the top.

11. (Withdrawn) As mentioned in claim 7 of the temperature sensor temperature sensing tube of the invention herein, the said tube member aperture is disposed in the said hole mount formed inward at the said bottom section.